Operator Training

Line Tightness Test



South Carolina Department of Health and Environmental Control

Pressurized Lines

Release detection regulations for piping state that there must be a method to look for the "big" leak (3.0 gallons per hour continuously) as well as the "little" leak (either 0.2 gallons per hour monthly or 0.1 gallons per hour yearly). A Line Tightness Test can satisfy the requirement for the little leak. You will have an additional method of line leak detection to look for the big leak.

Pressurized Lines

There are several ways to look for the big leak as well as the little leak:

- ■Big Leak = 3.0 gallons per hour continuously
 - Mechanical Line Leak Detector (LLD)
 - Electronic Line Leak Detector (ELD)
- Little Leak = 0.2 gallons per hour monthly or 0.1 gallons per hour annually
 - Monthly Statistical Inventory Reconciliation (0.2 gph monthly)
 - Monthly Interstitial Monitoring (0.2 gph monthly)
 - Monthly monitoring with an Electronic Line Leak Detector (0.2 gph or 0.1 gph)
 - Annual Line Tightness Test (0.1 gph yearly)

Line Tightness Test

An acceptable line tightness test must be able to detect a leak at least as small as 0.1 gallon per hour. Typical testing procedure is to take the line out of service and pressurize it to 1.5 times its normal operating pressure using hydraulic pressure or nitrogen. A drop in pressure over time, usually an hour or so, suggests a possible leak. Most line tightness tests are performed by testers who have been certified by the manufacturer of the testing equipment.



Line Tightness Test

Line Tightness Tests for pressurized lines are annual tests. The line tightness test should be performed within 365 days of the previous test. That means if the test was performed on September 1, 2009, the next test is due on or before September 1, 2010. Keep this test with other release detection records for at least one year or until the next test is performed.



